



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,387	04/11/2002	Moshe Brody	4075/OK306	3272
7590 Patent Department Macrovision Corporation 2830 De La Cruz Boulevard Santa Clara, CA 95050			EXAMINER DAVIS, ZACHARY A	
			ART UNIT 2137	PAPER NUMBER
			MAIL DATE 06/06/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/069,387

Applicant(s)

BRODY ET AL.

Examiner

Zachary A. Davis

Art Unit

2137

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 24 March 2008 has been entered.
2. By the above submission, Claims 1, 5-9, 12, and 13 have been amended. No claims have been added or canceled. Claims 1-9, 12, and 13 are currently pending in the present application.

Response to Amendment

3. It is noted that the present submission does not fully comply with the requirements of 37 CFR 1.121. In particular, the amendment to Claim 12 does not properly reflect all of the changes made relative to the immediate prior version of the claim as required by 37 CFR 1.121(c)(2); specifically, it appears that new text has been added without using underlining (see line 8 of Claim 12). However, because the present submission appears to be a *bona fide* attempt to advance the prosecution of the

present application, the submission has been treated as though it were fully compliant with the provisions of 37 CFR 1.121.

Response to Arguments

4. Applicant's arguments filed 24 March 2008 have been fully considered but they are not persuasive.

Regarding the rejection of Claims 1-9, 12, and 13 under 35 U.S.C. 102(e) as anticipated by Sinquin et al, US Patent 6425098, Applicant argues that "the office action has misunderstood and misinterpreted a unique and fundamental aspect of the present invention that is inherently different from and is not anticipated by Sinquin" (page 7 of the present response). The Examiner respectfully disagrees, and respectfully submits that, instead, Applicant is reading too much from the present specification into the claims.

Specifically, Applicant attempts to draw a distinction between the modification of error correction codes on a recorded or copied CD as described in Sinquin, as opposed to altering error correction codes on an original disc as described in the present application (see page 8 of the present response, citing Sinquin, column 4, line 23, and column 11, lines 17-33, for example, and also citing page 16, line 19 of the present specification). In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that the error correction codes are modified on an original disc as

opposed to a copy) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). As the claims currently read, there is nothing to distinguish whether the methods of Claims 1-6 and 12 are for producing an original audio CD or a copy; similarly, there is nothing to distinguish whether the audio CDs in Claims 7-9 and 13 are originals or copies.

Applicant further pursues this argument, stating that Sinquin does not make the alteration of the error correction codewords at the time of manufacture and that the alteration of parity symbols is describing what happens when an unauthorized copy of the CD is made (pages 11-12 of the present response, citing column 10, lines 1-5, and column 11, lines 17-33 of Sinquin, as cited in previous Office actions; also citing column 10, lines 42-44 of Sinquin); however, again, the Examiner notes that there is nothing in the claims that limits when the method is to be performed (e.g., whether it is at manufacture of an original or at the time of the creation of a copy of the CD) or whether the disc itself is an original or a copy.

Further, Applicant argues that "Sinquin introduces errors which are not correctable by normal error detection codes" (pages 8-11 of the present response, citing Sinquin, column 9, lines 40-48; column 10, line 60-column 11, line 33; and column 3, line 58-column 4, line 9, as cited in previous Office actions). However, the Examiner submits that Applicant, by this argument, has not drawn any distinction between Sinquin and the present invention. In particular, the Examiner notes that the present invention

also purports to introduce errors which are not correctable by normal error detection codes (see, for example, page 16, line 29-page 17, line 1; and page 22, line 29-page 25, line 11, of the present specification).

Finally, Applicant asserts that "Sinquin does NOT in fact disclose 'that parity symbols are altered' and that the Office Action has misinterpreted Sinquin" (page 12 of the present response). However, again, the Examiner respectfully disagrees. Although, as Applicant asserts, Sinquin discloses that at one point in the process of creating a disc, the CIRC data (i.e. the error correction codewords) are not changed (see page 12 of the present response, citing column 10, lines 42-44 of Sinquin), the Examiner submits that, further in the process, Sinquin does explicitly disclose that the parity symbols in the error correction codewords are altered (again, see column 10, lines 1-5, where it is explicitly stated that the error correcting codes are altered; see also column 11, lines 17-33, where new error correcting codes are generated, but there is no indication that the intentionally introduced errors are present, so the intentionally introduced errors are rendered uncorrectable).

It is noted that Applicant states that Sinquin only mentions the word "parity" once in its disclosure and the phrases "parity symbols" and "alteration of parity symbols" are not mentioned by Sinquin (page 12 of the present response). However, the Examiner respectfully submits that Sinquin's disclosure of error correcting codes, specifically CIRCs (Cross Interleave Reed-Solomon Codes), meets the claim language regarding parity symbols. By definition, the error correcting codes used in CD encoding, specifically CIRCs, are composed of parity symbols. By altering or recalculating the

CIRC (Sinquin, column 10, line 60-column 11, line 33), this would necessarily meet the limitation of altering parity symbols in error correction codewords.

In summary, while the Examiner appreciates the distinction Applicant has attempted to draw between performing various steps at the manufacture of an original disc, as opposed to at the creation of a copy of the disc, the Examiner again notes that there is nothing in the claims that requires this distinction be made. The Examiner respectfully submits that the claims, with the language as currently pending, are anticipated by Sinquin, as set forth in previous Office actions and as further detailed above.

Therefore, for the reasons detailed above, the Examiner maintains the rejection as set forth below.

Claim Objections

5. Claim 7 is objected to because of the following informalities:

Claim 7 recites "said overwritten data symbol have error-correction codewords associated therewith" in lines 7-8 of the claim. It appears that "have" should read "has" in order to be in agreement with the singular subject "symbol".

Appropriate correction is required.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 7-9 and 13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 7-9 and 13 are directed merely to arrangements of data, although stored on a compact disc. Specifically, independent Claim 7 does not recite any structure for the disc, but only discloses audio data samples and associated data symbols, at least one of which is erroneous, and that there are error correction codewords associated with the data symbols. This only requires an arrangement of data. An arrangement of data is non-functional descriptive material, which is not statutory subject matter even if stored on a computer-readable medium. See MPEP § 2106.01.

Claim Rejections - 35 USC § 112

8. Although some of the issues of indefiniteness under 35 U.S.C. 112, second paragraph, have been overcome by the amendments to the claims, other issues have not been addressed, and further, the amendments have also introduced new issues of indefiniteness. Therefore, the rejection of Claims 1-9, 12, and 13 under 35 U.S.C. 112, second paragraph, as indefinite, is NOT withdrawn. The claims remain rejected as set forth below.

Art Unit: 2137

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-9, 12, and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the data symbols representing said at least one audio data sample" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claims 5 and 6 each recite the limitation "the step of altering the at least one of a plurality of parity symbols". There is insufficient antecedent basis for this limitation in the claims; although Claim 1 recites "altering at least one of a plurality of parity symbols" as part of the step of disabling the error-correction codewords, there is no recitation of altering parity symbols as a step in and of itself.

Claim 12 recites the limitations "the C1 codewords of said error-correction codewords corresponding to said data symbols" in lines 4-6; "the C2 codewords corresponding to the altered plurality of parity symbols in each of the C1 codewords" in lines 7-9; and "the C1 codewords of said error-correction codewords corresponding to each of the altered plurality of parity symbols in the C2 codewords" in lines 11-13. There is insufficient antecedent basis for these limitations in the claims.

Claim 7 recites the limitation "said overwritten data sample" in lines 7-8. There is insufficient antecedent basis for this limitation in the claim.

Claim 13 recites the limitation “the C1 codewords of said error-correction codewords corresponding to said overwritten data symbol” in lines 4-6. There is insufficient antecedent basis for this limitation as a whole in the claims; also, as noted in reference to Claim 7, there is insufficient antecedent basis in the claims for the limitation “said overwritten data symbol”. Further, there is insufficient antecedent basis for the limitations “the C2 codewords corresponding to the altered plurality of parity symbols in the C1 codewords” in lines 7-8 and “the C1 codewords of said error-correction codewords corresponding to each of the altered plurality of parity symbols in the C2 codewords” in lines 9-11. Additionally, there is not clear antecedent basis within these limitations for the phrases “altered plurality of parity symbols”, although it appears that these are intended to refer to the “plurality of altered parity symbols” in the C1 or C2 codewords.

Claims not specifically referred to above are rejected due to their dependence on a rejected base claim.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1-9, 12, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Sinquin et al, US Patent 6425098.

In reference to Claim 1, Sinquin discloses a method for producing a copy-protected CD including selecting a data sample; locating symbols representing the sample, where the symbols have error-correction codewords associated therewith (column 9, lines 11-14); overwriting the symbol with erroneous symbols (column 9, lines 46-48); and disabling error correction of the erroneous symbols by altering at least one of a plurality of parity symbols in the codewords associated with the data symbols (column 10, line 60-column 11, line 33; see also column 3, line 58-column 4, line 9).

In reference to Claim 2, Sinquin further discloses that the sample is a concealable audio sample corresponding to linear interpolation of previous and subsequent samples (see column 9, lines 16-46; column 9, line 46-column 10, line 5).

In reference to Claim 3, Sinquin further discloses that the erroneous symbols are superimposed (column 8, lines 45-53; column 9, lines 46-48).

In reference to Claim 4, Sinquin further discloses selecting at least one sample from a sector in a group of sectors (column 9, lines 11-14).

In reference to Claims 5, 6, and 12, Sinquin further discloses that disabling the error correction further includes overwriting data symbols with an arbitrary erroneous symbol or erasure (column 10, line 60-column 11, line 19).

Claims 7-9 and 13 are directed to articles of manufacture corresponding substantially to the methods of Claims 1, 5, 6, and 12, respectively, and are rejected by a similar rationale.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary A. Davis whose telephone number is (571)272-3870. The examiner can normally be reached on weekdays 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ZAD/
Examiner, Art Unit 2137

/Emmanuel L. Moise/
Supervisory Patent Examiner, Art Unit 2137